

ABSTRACT:

The invention relates to a cooled high-pressure gas-discharge lamp, at least comprising a cooled envelope (43) that seals off hermetically a discharge chamber (431) filled with a gas, there being, at least in the discharge chamber (431), a non-uniform temperature distribution at the time of the gas discharge, and comprising a cooling means (7) having a coolant, which cooling means (7) produces a directed flow (9) of coolant, there being a liquid coolant acting on the envelope (43) of the lamp, it being possible for the lamp to be operated at a higher power, and the flow (9) of coolant being such that, when the power consumption of the lamp is increased, any devitrification of the envelope (43) of the lamp and any condensation of the gas is substantially prevented.

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Fig. 1